

ABSTRACT OF THE DISCLOSURE

An encryption apparatus for performing an encryption operation using a public key encryption technique includes a public key encryption processor for performing an encryption operation using a public key encryption technique, a hash value generator for generating a hash value which is used by the public key encryption processor, and a storage unit for storing the generated hash value. When the hash value generator accesses the storage unit, at least other arithmetic operations performed by the public key encryption processor are suppressed. With the reduced instantaneous power consumption, high-speed and high-security signature generation and authentication using a public key is achieved.